



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION

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Tremco, Inc.
23150 Commerce Park Dr.
Beachwood, OH 44122

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Vulkem® Extreme Wearing System (EWS)

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA consists of pages 1 through 9.
The submitted documentation was reviewed by Alex Tigera.



NOA No.: 15-0127.03
Expiration Date: 12/29/17
Approval Date: 12/29/16
Page 1 of 9

ROOFING SYSTEM APPROVAL

Category:	Roofing
Sub-Category:	Waterproofing
Material	Polyurethane Methacrylate (PUMA)
Deck Type:	Concrete
Maximum Design Pressure	-1005 psf.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
Vulkem® EWS Initiator	Available in 22-lb, 55-lb bags or 110-lb containers	Proprietary	A benzoyl peroxide based component used to react all components of Vulkem EWS.
Vulkem® Primer #70	Available in 6 gallon pails	Proprietary	A two-part, chemical curing methyl methacrylate (MMA) primer for porous and non-porous surfaces.
Vulkem® BC 370	Available in 6 gallon pails	ASTM D 5147 ASTM D 4073 ASTM D 1204 ASTM D 5869 ASTM D 4798 ASTM D 5602 ASTM D 570 ASTM D 1929 ASTM D 2843 ASTM D 7264 ASTM C 957 ASTM C 794 ASTM C 903	A two-part, chemical curing PUMA modified coating used for Vulkem EWS.
Vulkem® TC 970	Available in 2 & 6 gallon pails	ASTM D 5147 ASTM D 570 ASTM E 96 ASTM D 4798	A two-part, chemical curing MMA coating used for Vulkem EWS.
TREMDrain® S	4' x 50' rolls	Proprietary	Drain mat
TREMDrain® 6600 Series	6' x 50' rolls	Proprietary	Polypropylene core with polypropylene filter fabric.
Dymonic 100	10.1 oz. cartridges, 20 oz. sausages	Proprietary	High performance, medium-modulus, UV stable, non-sag polyurethane sealant



TRADE NAMES OF PRODUCTS MANUFACTURED BY OTHERS:

TABLE 2

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>	<u>Manufacturer</u>
Ceramic Tile	Min. 12" x 12" x 1/4"	ANSI A137.1	Ceramic Floor Tile	Generic
Thin-Set Mortar	N/A	ANSI A118.10	Polymer modified thin-set grout for ceramic tile or pavers	Generic

APPROVED INSULATIONS:

TABLE 3

<u>Product Name</u>	<u>Product Description</u>	<u>Manufacturer (With Current NOA)</u>
Dow Plazamate Styrofoam Insulation	Extruded polystyrene foam insulation (XPS)	Dow Chemical USA

EVIDENCE SUBMITTED:

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Test Specification</u>	<u>Date</u>
PRI Construction Materials Technologies LLC	TRE-168-02-02	ANSI FM 4474B & TAS 114D	1/15/16
	TRE-157-02-01	ANSI 447B & TAS 114D	1/1/15
	TRE-169-02-01	Physical Properties	11/23/16
	TRE-174-02-01	Physical Properties	12/09/16
	TRE-117-02-01	Physical Properties	12/20/16
	TRE-168-02-01	Physical Properties	11/23/16
	TRE-134-02-01	Physical Properties	09/11/14



APPROVED APPLICATIONS:

- Deck Type 3** Concrete Decks, Terraces, Balconies, Walkways, Roof Plaza Decks
- Deck Description:** Min. 2500 psi, single-ply, granular protection course
- System Types F(1):** Vulkem® Extreme Wearing System – Under Tile
- Substrate:** Structural concrete shall be water cured prior to application of membrane. Venting the deck from the underside is recommended to facilitate drying of the deck. The curing method must be a water cure, wet coverings, paper sheets, plastic sheets or approved liquid curing compound such as sodium silicate
- Substrate Preparation:** All surfaces must be dry and clean, free of depressions, spalled areas, honeycombs, or voids, release agents, curing compounds and other surface contaminants.
- Surfaces to receive Vulkem EWS shall be prepared by shot blasting, water blasting, sandblasting or grinding as may be most suitable and to achieve a CSP in line with manufacturer's application instructions. A final check of the substrate must be made to determine that the substrate has been properly cleaned. Any defects which may impair performance of the membrane shall be appropriately repaired.
- Primer:** Mix Vulkem Primer #70, including Vulkem EWS Initiator per manufacturer's application instructions. Apply by roller at a rate of approximately 125 ft²/gal to yield 20 wet mils to the entire area to be coated. Lightly broadcast 20-30 mesh silica quartz sand aggregate at a rate of 7 lbs. per 100 ft² into the wet primer and allow to cure a minimum of 15 minutes. For detail work, refer to manufacturer's application instructions.
- Base Coat:** Mix Vulkem BC 370, including Vulkem EWS Initiator per manufacturer's application instructions. Apply Vulkem BC 370 and distribute using a metal notched rake at a rate of 20 ft²/gal to yield 80 wet mils on the entire area to be coated. Immediately spike roll Vulkem BC 370. Allow Vulkem BC 370 to cure a minimum of 45 minutes.
- Top Coat:** Mix Vulkem TC 970, including Vulkem EWS Initiator per manufacturer's application instructions. Apply Vulkem TC 970 and distribute by roller at a rate of 80 ft²/gal to yield 20 wet mils on the entire area to be coated. Immediately broadcast to refusal (flood coat) the Vulkem TC 970 material with 20-30 mesh silica quartz aggregate. Allow Vulkem TC 970 to cure a minimum of 45 minutes. Sweep, blow or vacuum off excess aggregate before proceeding.
- Integrity Test:** Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water maybe maintained for a period longer than 24 hours if required.
- Inspection:** A representative of the membrane manufacturer, or Tremco approved inspection consultant or Approved Tremco Distributor Technical Representative may review the waterproofing assembly and notify the contractor of any defects. All defects shall be corrected.

Surfacing:

Minimum 12" x 12" x 1/4" thick ceramic tile, as listed in Table 2, shall be installed in thin-set. Thin-set, as listed in Table 2, shall be prepared as specified by thin-set manufacturer. Tile should then be carefully embedded in the thin-set .

**Maximum Design
Pressure:**

-1005 psf (See General Limitation #9)



Deck Type 3	Concrete Decks, Terraces, Balconies, Walkways, Roof Plaza Decks
Deck Description:	Min. 2500 psi, structural concrete
System Types F (2):	Vulkem® Extreme Wearing System - Pedestrian Traffic
Substrate:	Structural concrete shall be water cured prior to application of membrane. Venting of pan decking from the underside is recommended to facilitate drying of the concrete. Curing methods must be a water cure, wet coverings, paper sheets, plastic sheets or approved liquid curing compound such as sodium silicate.
Substrate Preparation:	All surfaces must be dry and clean, free of depressions, spalled areas, honeycombs, or voids, release agents, curing compounds and other surface contaminants. Surfaces to receive Vulkem EWS shall be prepared by shot blasting, water blasting, sandblasting or grinding as may be most suitable and to achieve a CSP in line with manufacturer's application instructions. A final check of the substrate must be made to determine that the substrate has been properly cleaned. Any defects which may impair performance of the membrane shall be appropriately repaired.
Primer:	Mix Vulkem Primer #70, including Vulkem EWS Initiator per manufacturer's application instructions. Apply by roller at a rate of approximately 125 ft ² /gal to yield 20 wet mils to the entire area to be coated. Lightly broadcast 20-30 mesh silica quartz sand aggregate at a rate of 7 lbs. per 100 ft ² into the wet primer and allow to cure a minimum of 15 minutes. For detail work, refer to manufacturer's application instructions.
Base Coat:	Mix Vulkem BC 370, including Vulkem EWS Filler Powder at 11 pounds per gallon and Vulkem EWS Initiator per manufacturer's application instructions. Apply membrane and distribute using a metal notched rake at a rate of 29 ft ² /gal to yield 55 wet mils on the entire area to be coated. Immediately spike roll Vulkem BC 370 and broadcast 20-30 mesh silica quartz aggregate to refusal (flood coat). Allow material to cure a minimum of 45 minutes. Sweep, blow or vacuum off excess aggregate before proceeding.
Top Coat:	Mix Vulkem TC 970, including Vulkem EWS Initiator per manufacturer's application instructions. Apply Vulkem TC 970 and distribute by roller at a rate of 160 ft ² /gal to yield 10 wet mils on the entire area to be coated. Allow Vulkem TC 970 to cure a minimum of 60 minutes before opening to traffic.
Integrity Test:	Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water maybe maintained for a period longer than 24 hours if required.
Inspection:	A representative of the membrane manufacturer, or Tremco approved inspection consultant or Approved Tremco distributor Technical Representative may review the waterproofing assembly and notify the contractor of any defects. All defects shall be corrected.
Surfacing:	N/A
Maximum Design Pressure:	-1005 psf (see General Limitations #9)



Deck Type 1	Concrete Decks, Terraces, Balconies, Roof Plaza Decks
Deck Description:	Min. 2500 psi, dual slab construction
System Types F (3):	Vulkem® Extreme Wearing System – Non-insulated
Substrate:	Structural concrete shall be water cured prior to application of membrane. Venting of pan decking from the underside is recommended to facilitate drying of the concrete. Curing methods must be a water cure, wet coverings, paper sheets, plastic sheets or approved liquid curing compound such as sodium silicate.
Substrate Preparation:	All surfaces must be dry and clean, free of depressions, spalled areas, honeycombs, or voids, release agents, curing compounds and other surface contaminants. Surfaces to receive Vulkem EWS shall be prepared by shot blasting, water blasting, sandblasting or grinding as may be most suitable and to achieve a CSP in line with manufacturer’s application instructions. A final check of the substrate must be made to determine that the substrate has been properly cleaned. Any defects which may impair performance of the membrane shall be appropriately repaired.
Primer:	Mix Vulkem Primer #70, including Vulkem EWS Initiator per manufacturer's application instructions. Apply by roller at a rate of approximately 80-100 ft ² /gal to yield 17-20 wet mils to the entire area to be coated. Lightly broadcast 20-30 mesh silica quartz sand aggregate at a rate of 7 lbs. per 100 ft ² into the wet primer and allow to cure a minimum of 15 minutes. For detail work, refer to manufacturer's application instructions.
Base Coat:	Mix Vulkem BC 370 and Vulkem EWS Initiator per manufacturer's application instructions. Apply membrane and distribute using a metal notched rake at a rate of 20 ft ² /gal to yield 80 wet mils on the entire area to be coated. Immediately spike roll Vulkem BC 370. Allow material to cure a minimum of 45 minutes.
Integrity Test:	Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water may be maintained for a period longer than 24 hours if required.
Inspection:	A representative of the membrane manufacturer, or Tremco approved inspection consultant or Approved Tremco distributor Technical Representative may inspect the waterproofing assembly and notify the contractor of any defects. All defects shall be corrected.
Protection Course	Optional, install TREMDrain S or TREMDrain 6600 per Manufacturer’s Application Instructions
Insulation:	N/A
Surfacing:	Structural Concrete Slab, minimum 2500 psi shall be designed to comply with applicable Building Code requirements
Maximum Design Pressure:	N/A



Deck Type 1	Concrete Decks, Terraces, Balconies, Roof Plaza Decks
Deck Description:	Min. 2500 psi, dual slab construction
System Types F (4):	Vulkem® Extreme Wearing System – Insulated
Substrate:	Structural concrete shall be water cured prior to application of membrane. Venting of pan decking from the underside is recommended to facilitate drying of the concrete. Curing methods must be a water cure, wet coverings, paper sheets, plastic sheets or approved liquid curing compound such as sodium silicate.
Substrate Preparation:	All surfaces must be dry and clean, free of depressions, spalled areas, honeycombs, or voids, release agents, curing compounds and other surface contaminants. Surfaces to receive Vulkem EWS shall be prepared by shot blasting, water blasting, sandblasting or grinding as may be most suitable and to achieve a CSP in line with manufacturer’s application instructions. A final check of the substrate must be made to determine that the substrate has been properly cleaned. Any defects which may impair performance of the membrane shall be appropriately repaired.
Primer:	Mix Vulkem Primer #70, including Vulkem EWS Initiator per manufacturer's application instructions. Apply by roller at a rate of approximately 80-100 ft ² /gal to yield 17-20 wet mils to the entire area to be coated. Lightly broadcast 20-30 mesh silica quartz sand aggregate at a rate of 7 lbs. per 100 ft ² into the wet primer and allow to cure a minimum of 15 minutes. For detail work, refer to manufacturer's application instructions.
Base Coat:	Mix Vulkem BC 370 and Vulkem EWS Initiator per manufacturer's application instructions. Apply membrane and distribute using a metal notched rake at a rate of 20 ft ² /gal to yield 80 wet mils on the entire area to be coated. Immediately spike roll Vulkem BC 370. Allow material to cure a minimum of 45 minutes.
Integrity Test:	Required, and shall be performed in accordance with ASTM D 5957 by an approved lab. Water maybe maintained for a period longer than 24 hours if required.
Inspection:	A representative of the membrane manufacturer, or Tremco approved inspection consultant or Approved Tremco distributor Technical Representative may review the waterproofing assembly and notify the contractor of any defects. All defects shall be corrected.
Protection Course	Optional, install TREMDrain S or TREMDrain 6600 per Manufacturer’s Application Instructions
Insulation:	Minimum 40 psi insulation board listed in Table 3.
Surfacing:	Structural Concrete Slab, minimum 2500 psi shall be designed to comply with applicable Building Code requirements
Maximum Design Pressure:	N/A



GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Required integrity flood testing report shall be provided to the Building Official for review at time of final inspection.
3. A non-skid surface is required for all vehicular, pedestrian areas; plaza decks or balconies.
4. Vulkem® Systems described herein shall be installed solely by approved applicators familiar with the details and approved by Tremco, Inc., and only with approved equipment.
5. Flashings shall be installed according to the manufacturer's published standard details, specific details, approved by Tremco, Inc., and shall be submitted to the Building Official for review.
6. Tremco, Inc., Vulkem® Systems shall not be installed without consultation with Tremco, Inc., if ambient or surface temperature is below 40°F. Do not apply to wet or frozen concrete surface.
7. Tremco, Inc., Vulkem® Systems shall not be installed over lightweight insulating concrete or plywood decking.
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and the wind load requirements of applicable Building Code.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners).
10. A non-skid surfacing is required for all pedestrian areas, plaza decks or balconies.
11. Contractor shall submit to the Building Official for review the system specifications and details. Submission of these documents, as well as the proper application and installation of all materials shall be the sole responsibility of the contractor.
12. All approved products listed herein shall be labeled and shall bear the imprint or identifiable marking of the manufacturer's name or logo and following statement: "Miami-Dade County Product Control Approved" or the Miami-Dade County Product Control Seal as shown below.



13. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE

